

WKM Consultancy
Pipeline Risk Management Workshops

Pipeline Risk Management

Risk management has been embraced by both the pipeline industry and regulatory agencies as a way to not only increase public safety but also to optimize all aspects of pipeline design, operations, and maintenance.

A WKM Consultancy risk management workshop is normally designed to equip attendees with the information and the know-how to set up and implement a comprehensive risk management program for pipelines. The focus is often on the establishment of a program that not only follows industry best practices, but also gives the pipeline owner/operator a long-term decision support tool. This course typically begins with a review of risk management concepts and methodologies and then focuses on the most popular risk technique in current use by the pipeline industry. *The emphasis throughout is on practical, ready-to-apply techniques that yield immediate and cost-effective benefits.*

The workshop can be structured so that it is appropriate for either the practicing or the beginning risk manager. Each attendee will leave with the necessary real-world tools to begin, or strengthen, risk assessment techniques and be equipped with the skills to create a formalized risk management program. As much as is possible, course content will be directed to specific audience needs.

Led by W. Kent Muhlbauer, author of the most widely respected textbook on the subject and a prominent expert in this field, this hands-on course has won extensive praise from past attendees. A copy of Mr. Muhlbauer's textbook, **Pipeline Risk Management Manual, 2nd Edition**, can be made available, as well as a comprehensive course notebook for future reference.

Course contents often include:

- Basic Concepts of Risk,
- Risk Assessment Processes,
- The Indexing Technique,
- Failure Modes,
- Consequence Analysis,
- Hazard Zone Calculations
- Leak Impact Factor,
- Supplemental Assessments,
- Data Collection and Analysis,
- QA/QC of Data
- Dynamic Segmentation,
- Using Common Spreadsheet and Desktop Database Tools,
- Managing the Risks,
- Resource Allocation Modeling,
- Practical Applications.
- Integrity Management and Risk Management

Target Audience

Anyone requiring a general knowledge of pipeline risk concepts and how they can be practically integrated into pipeline operations, maintenance, design, or regulatory compliance. The workshop subject areas and materials can be easily customized to fit the target audience needs.

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Typical Course Outline

Introduction

Methodology Quickview

- Objectives of Risk Management
- Gathering and Effectively Utilizing Information
- Using Model Results in Decision-Making

Definitions

Risk Assessment

- Concepts
- Tools
- Methodology choices
- Choosing the optimum approach
- Data collection issues
- A proposed methodology—the basic algorithm with assumptions
- Customizing the methodology for specific applications
- Sensitivity analyses
- Databases and software issues
- Tips and Learning Experiences in Practicing Risk Assessment

Risk Management

- ✓ Data Analysis
- ✓ Data-based Decision Making
- ✓ Project Prioritization Based on Risk Assessments
- ✓ Building a Resource Allocation Model
- ✓ Correlating relative risk scales with absolute risk

Administrative Processes—Ingredients for Continued Success

- Administrative support structures
- Data maintenance
- Reporting
- Procedures
- Training
- Performance Measurements

About WKM Consultancy

The 3 principals of WKM Consultancy have over 70 years combined experience in pipeline design, construction, operations and management with over 20 years specific to pipeline risk management and integrity management. Since its inception in 1994, WKM Consultancy has been an advisor to government regulatory agencies and academia as well as the primary consultant in numerous pipeline technical projects for more than 50 clients, including many major U.S. and international pipeline operating companies.